

NEWS RELEASE

PAR PACIFIC HOLDINGS REPORTS THIRD QUARTER 2022 RESULTS

HOUSTON, November 1, 2022 - Par Pacific Holdings, Inc. (NYSE: PARR) ("Par Pacific" or the "Company") today reported its financial results for the quarter ended September 30, 2022.

- Net Income of \$267.4 million, or \$4.47 per diluted share
- Adjusted Net Income of \$172.0 million, or \$2.88 per diluted share
- Adjusted EBITDA of \$214.1 million
- Record Retail and Logistics segment Adjusted EBITDA
- Announced acquisition of ExxonMobil Billings refinery and associated marketing and logistics assets for a base purchase price of \$310 million, which is expected to be funded with Par Pacific's existing liquidity

Par Pacific reported net income of \$267.4 million, or \$4.47 per diluted share, for the quarter ended September 30, 2022, compared to net income of \$81.8 million, or \$1.37 per diluted share, for the same quarter in 2021. Third quarter 2022 Adjusted Net Income was \$172.0 million, compared to Adjusted Net Income of \$18.6 million in the third quarter of 2021. Third quarter 2022 Adjusted EBITDA was \$214.1 million, compared to \$58.2 million in the third quarter of 2021. Adjusted financial results exclude a \$(5.1) million RINs mark-to-market (MTM) expense. A reconciliation of reported non-GAAP financial measures to their most directly comparable GAAP financial measures can be found in the tables accompanying this news release.

"We are pleased to report a second consecutive quarter of exceptionally strong results, including record contribution from retail and logistics, as we maintained high refining reliability and benefited from our industry-leading distillate orientation," said William Pate, President and Chief Executive Officer. "We look forward to successfully closing the Billings acquisition and pursuing other strategic growth initiatives through our strong free cash flow generation."

As previously announced on October 20, 2022, the acquisition of ExxonMobil's Billings refinery and related logistics assets will significantly enhance the Company's scale and geographic diversification and expands Par Pacific's fully integrated downstream network in the western United States. The transaction is expected to close in the second quarter of 2023.

Refining

The Refining segment reported operating income of \$266.1 million in the third quarter of 2022, compared to \$86.4 million in the third quarter of 2021. Adjusted Gross Margin for the Refining segment was \$250.8 million in the third quarter of 2022, compared to \$93.5 million in the third quarter of 2021.

Refining segment Adjusted EBITDA was \$187.8 million in the third quarter of 2022, compared to \$38.0 million in the third quarter of 2021. Third quarter 2022 Refining segment Adjusted EBITDA excludes a MTM expense of \$(5.1) million related to increased RINs prices.

Hawaii

The 3-1-2 Singapore Crack Spread was \$26.43 per barrel in the third quarter of 2022, compared to \$6.20 per barrel in the third quarter of 2021. Throughput in the third quarter of 2022 was 80 thousand barrels per day (Mbpd), compared to 81 Mbpd for the same quarter in 2021. Production costs were \$5.14 per throughput barrel in the third quarter of 2022, compared to \$4.28 per throughput barrel in the same period of 2021.

The Hawaii refinery's Adjusted Gross Margin of \$19.49 per barrel during the third quarter of 2022 excludes a RINs MTM expense of approximately \$(2.8) million, or \$(0.38) per barrel.

Washington

The Pacific Northwest 5-2-2-1 Index averaged \$33.21 per barrel in the third quarter of 2022, compared to \$18.59 per barrel in the third quarter of 2021. The Washington refinery's throughput was 40 Mbpd in the third quarter of 2022, compared to 38 Mbpd in the third quarter of 2021. Production costs were \$3.43 per throughput barrel in the third quarter of 2022, compared to \$3.60 per throughput barrel in the same period of 2021.

The Washington refinery's Adjusted Gross Margin of \$19.97 per barrel during the third quarter of 2022 excludes a RINs MTM expense of approximately \$(1.1) million, or \$(0.28) per barrel.

Wyoming

During the third quarter of 2022, the Wyoming 3-2-1 Index averaged \$45.78 per barrel, compared to \$41.78 per barrel in the third quarter of 2021. The Wyoming refinery's throughput was 18 Mbpd in the third quarter of 2022, compared to 18 Mbpd in the third quarter of 2021. Production costs were \$6.63 per throughput barrel in the third quarter of 2022, compared to \$5.92 per throughput barrel in the same period of 2021.

The Wyoming refinery's Adjusted Gross Margin of \$19.39 per barrel during the third quarter of 2022 excludes a RINs MTM expense of approximately \$(1.3) million, or \$(0.77) per barrel, and includes a FIFO expense of approximately \$(14.6) million, or \$(8.70) per barrel.

Retail

The Retail segment reported operating income of \$17.3 million in the third quarter of 2022, compared to \$11.2 million in the third quarter of 2021. Adjusted Gross Margin for the Retail segment was \$41.8 million in the third quarter of 2022, compared to \$32.5 million in the same quarter of 2021.

Retail segment Adjusted EBITDA was \$20.2 million in the third quarter of 2022, compared to \$13.8 million in the third quarter of 2021. The Retail segment reported sales volumes of 27.8 million gallons in the third quarter of 2022, compared to 28.7 million gallons in the same quarter of 2021.

Logistics

The Logistics segment reported operating income of \$17.6 million in the third quarter of 2022, compared to \$13.4 million in the third quarter of 2021. Adjusted Gross Margin for the Logistics segment was \$26.2 million in the third quarter of 2022, compared to \$22.7 million in the same quarter of 2021.

Logistics segment Adjusted EBITDA was \$22.5 million in the third quarter of 2022, compared to \$18.9 million in the third quarter of 2021.

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Laramie Energy

Due to the discontinuation of the equity method of accounting as of June 30, 2020, we recorded no equity earnings (losses) from Laramie in the third quarter of 2022. Laramie's net loss was \$(5.2) million in the third quarter of 2022, including unrealized losses on derivatives of \$(17.4) million. These results compare to a net loss of \$(41.9) million in the third quarter of 2021. Laramie's total Adjusted EBITDAX was \$25.8 million in the third quarter of 2022, compared to \$26.2 million in the third quarter of 2021.

Liquidity

Net cash provided by operations totaled \$341.4 million for the three months ended September 30, 2022, compared to \$52.8 million for the three months ended September 30, 2021. Net cash provided by operations of \$341.4 million for the three months ended September 30, 2022 includes \$0.1 million in deferred turnaround expenditures. Third quarter 2022 net working capital inflows totaled \$43.7 million. Net cash used in investing activities totaled \$(8.7) million for the three months ended September 30, 2022, primarily related to capital expenditures, compared to net cash used in investing activities of \$(6.5) million for the three months ended September 30, 2021. Net cash used in financing activities totaled \$(109.8) million for the three months ended September 30, 2022, compared to \$(17.3) million for the three months ended September 30, 2022 financing cash flows include \$10 million of open market debt repurchases.

At September 30, 2022, Par Pacific's cash balance totaled \$409.1 million, gross debt was \$518.6 million, and total liquidity was \$494.7 million. Net debt was \$109.5 million at September 30, 2022, a \$236.0 million improvement from June 30, 2022.

Conference Call Information

A conference call is scheduled for Wednesday, November 2, 2022 at 8:30 a.m. Central Time (9:30 a.m. Eastern Time). To access the call, please dial 1-833-974-2377 inside the U.S. or 1-412-317-5782 outside of the U.S. and ask for the Par Pacific call. Please dial in at least 10 minutes early to register. The webcast may be accessed online through the Company's website at http://www.parpacific.com on the Investors page. A telephone replay will be available until November 16, 2022 and may be accessed by calling 1-877-344-7529 inside the U.S. or 1-412-317-0088 outside the U.S. and using the conference ID 8578073.

About Par Pacific

Par Pacific Holdings, Inc. (NYSE: PARR), headquartered in Houston, Texas, owns and operates market-leading energy, infrastructure, and retail businesses. Par Pacific's strategy is to acquire and develop businesses in logistically complex, niche markets. Par Pacific owns and operates one of the largest energy networks in Hawaii with 94,000 bpd of operating refining capacity, a logistics system supplying the major islands of the state and 90 retail locations. In the Pacific Northwest and the Rockies, Par Pacific owns and operates 61,000 bpd of combined refining capacity, related multimodal logistics systems, and 28 retail locations. Par Pacific also owns 46% of Laramie Energy, LLC, a natural gas production company with operations and assets concentrated in Western Colorado. More information is available at www.parpacific.com.

Forward-Looking Statements

This news release (and oral statements regarding the subject matter of this news release, including those made on the conference call and webcast announced herein) includes certain "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the

Securities Exchange Act of 1934, as amended, which are intended to qualify for the "safe harbor" from liability established by the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact are forward-looking statements. Forward-looking statements include, without limitation, statements about: expected market conditions; anticipated free cash flows; anticipated refinery throughput; anticipated cost savings; anticipated capital expenditures, including major maintenance costs, and their effect on our financial and operating results, including earnings per share and free cash flow; anticipated retail sales volumes and on-island sales; the anticipated financial and operational results of Laramie Energy, LLC; the amount of our discounted net cash flows and the impact of our NOL carryforwards thereon; our ability to identify, acquire and develop energy, related retailing and infrastructure businesses; the timing and expected results of certain development projects, as well as the impact of such investments on our product mix and on-island sales; the effects and timing of the closing of the acquisition of the Billings refinery and associated marketing and logistics assets ("Billings Acquisition"), the anticipated cash on hand and other financing for the Billings Acquisition and the acquisition of the hydrocarbon inventory, the anticipated synergies and other benefits of the Billings Acquisition, including renewable growth opportunities, the anticipated financial and operating results of the Billings Acquisition and the effect on Par Pacific's cash flows and profitability (including Adjusted EBITDA and Adjusted Net Income and Free Cash Flow per share), and other risks and uncertainties detailed in our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and any other documents that we file with the Securities and Exchange Commission. Additionally, forward-looking statements are subject to certain risks, trends, and uncertainties, such as changes to our financial condition and liquidity: the volatility of crude oil and refined product prices; the conflict between Russia and Ukraine and its potential impacts on global crude oil markets and our business; operating disruptions at our refineries resulting from unplanned maintenance events or natural disasters; environmental risks; changes in the labor market; and risks of political or regulatory changes. We cannot provide assurances that the assumptions upon which these forward-looking statements are based will prove to have been correct. Should one of these risks materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those expressed or implied in any forward-looking statements, and investors are cautioned not to place undue reliance on these forward-looking statements, which are current only as of this date. Additionally, significant uncertainties remain with respect to COVID-19 and its economic effects. Due to the unpredictable and unprecedented nature of the COVID-19 pandemic, we cannot identify all potential risks to, and impacts on, our business, including the ultimate adverse economic impact to our results of operations, financial position and liquidity. There can be no guarantee that the operational and financial measures we have taken, and may take in the future, will be fully effective. We do not intend to update or revise any forward-looking statements made herein or any other forwardlooking statements as a result of new information, future events or otherwise. We further expressly disclaim any written or oral statements made by a third party regarding the subject matter of this news release.

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Condensed Consolidated Statements of Operations

(Unaudited)

(in thousands, except per share data)

	Three Months Ended September 30,				ths Ended aber 30,
		2022	2021	2022	2021
Revenues	\$ 2	2,056,285	\$ 1,310,368	\$ 5,512,910	\$ 3,416,573
Operating expenses					
Cost of revenues (excluding depreciation)	1	,642,626	1,098,422	4,801,800	3,184,583
Operating expense (excluding depreciation)		88,329	78,059	252,075	221,068
Depreciation and amortization		25,125	23,618	74,488	70,046
Loss (gain) on sale of assets, net		(185)	2	(170)	(64,400)
General and administrative expense (excluding depreciation)		16,219	12,473	47,550	36,559
Acquisition and integration costs			1	63	87
Total operating expenses	1	1,772,114	1,212,575	5,175,806	3,447,943
Operating income (loss)		284,171	97,793	337,104	(31,370)
Other income (expense)					
Interest expense and financing costs, net		(16,852)	(15,374)	(51,400)	(50,711)
Debt extinguishment and commitment costs		343	(9)	(5,329)	(8,144)
Gain on curtailment of pension obligation		_	_	_	2,032
Other income (expense), net		(198)	(22)	(149)	3
Total other expense, net		(16,707)	(15,405)	(56,878)	(56,820)
Income (loss) before income taxes		267,464	82,388	280,226	(88,190)
Income tax benefit (expense)		(68)	(586)	(756)	(1,193)
Net income (loss)	\$	267,396	\$ 81,802	\$ 279,470	\$ (89,383)
Weighted-average shares outstanding					
Basic		59,535	59,437	59,481	57,713
Diluted		59,831	59,761	59,710	57,713
Income (loss) per share					
Basic	\$	4.49	\$ 1.38	\$ 4.70	\$ (1.55)
Diluted	\$	4.47	\$ 1.37	\$ 4.68	\$ (1.55)

Balance Sheet Data

(Unaudited)

(in thousands)

	Septem	September 30, 2022					
Balance Sheet Data				_			
Cash and cash equivalents	\$	409,090	\$	112,221			
Working capital (1)		(381,285)		(327,002)			
Debt, including current portion		507,788		564,558			
Total stockholders' equity		546,892		265,700			

⁽¹⁾ Working capital is calculated as (i) total current assets excluding cash and cash equivalents less (ii) total current liabilities excluding current portion of long-term debt. Total current assets include inventories stated at the lower of cost or net realizable value.

Operating Statistics

The following table summarizes key operational data:

	Three Mont Septemb		Nine Month Septemb	
	2022	2021	2022	2021
Total Refining Segment				
Feedstocks throughput (Mbpd)	138.5	137.3	132.8	135.1
Refined product sales volume (Mbpd)	149.3	144.9	138.5	140.5
Hawaii Refinery				
Feedstocks throughput (Mbpd)	79.7	81.0	82.2	82.0
Yield (% of total throughput)				
Gasoline and gasoline blendstocks	28.1 %	23.3 %	25.4 %	24.2 %
Distillates	39.3 %	45.9 %	39.5 %	45.3 %
Fuel oils	30.1 %	24.9 %	31.1 %	26.0 %
Other products	(0.9)%	3.4 %	0.6 %	1.5 %
Total yield	96.6 %	97.5 %	96.6 %	97.0 %
Refined product sales volume (Mbpd)				
On-island sales volume	84.7	86.7	81.0	83.9
Export sales volume	1.9		0.6	
Total refined product sales volume	86.6	86.7	81.6	83.9
Adjusted Gross Margin per bbl (\$/throughput bbl) (1)	\$ 19.49	\$ 6.02	\$ 13.92	\$ 4.35
Production costs per bbl (\$/throughput bbl) (2)	5.14	4.28	4.67	3.89
D&A per bbl (\$/throughput bbl)	0.68	0.67	0.66	0.67
Washington Refinery				
Feedstocks throughput (Mbpd)	40.5	38.4	33.8	36.3
Yield (% of total throughput)				
Gasoline and gasoline blendstocks	24.2 %	22.8 %	24.4 %	23.6 %
Distillate	34.1 %	33.0 %	34.1 %	34.3 %
Asphalt	20.2 %	22.5 %	19.9 %	20.9 %
Other products	18.4 %	18.7 %	18.5 %	18.4 %
Total yield	96.9 %	97.0 %	96.9 %	97.2 %
Refined product sales volume (Mbpd)	45.3	40.7	39.9	40.3
Adjusted Gross Margin per bbl (\$/throughput bbl) (1)	\$ 19.97	\$ 3.52		\$ 2.63
Production costs per bbl (\$/throughput bbl) (2)	3.43	3.60	4.19	3.70
D&A per bbl (\$/throughput bbl)	2.02	1.48	2.28	1.56

		nths Ended iber 30,	Nine Mon Septem	
	2022	2021	2022	2021
Wyoming Refinery				
Feedstocks throughput (Mbpd)	18.3	17.9	16.8	16.8
Yield (% of total throughput)				
Gasoline and gasoline blendstocks	48.3 %	46.5 %	48.8 %	46.9 %
Distillate	43.9 %	46.2 %	43.6 %	46.0 %
Fuel oils	3.0 %	2.3 %	2.5 %	2.1 %
Other products	2.5 %	2.1 %	2.5 %	2.0 %
Total yield	97.7 %	97.1 %	97.4 %	97.0 %
Refined product sales volume (Mbpd)	17.4	17.5	17.0	16.3
Adjusted Gross Margin per bbl (\$/throughput bbl) (1)	\$ 19.39	\$ 21.84	\$ 29.20	\$ 16.45
Production costs per bbl (\$/throughput bbl) (2)	6.63	5.92	7.14	6.49
D&A per bbl (\$/throughput bbl)	2.40	2.77	2.82	2.83
Market Indices (\$ per barrel)				
3-1-2 Singapore Crack Spread (3)	\$ 26.43	\$ 6.20	\$ 26.52	\$ 4.80
Pacific Northwest 5-2-2-1 Index (4)	33.21	18.59	33.79	15.39
Wyoming 3-2-1 Index (5)	45.78	41.78	42.36	31.01
Crude Oil Prices (\$ per barrel)				
Brent	\$ 97.70	\$ 73.23	\$102.53	\$ 67.92
WTI	91.43	70.52	98.31	64.99
ANS	103.80	73.83	106.41	68.35
Bakken Clearbrook	95.49	70.77	102.09	64.84
WCS Hardisty	70.93	57.54	82.23	52.39
Brent M1-M3	3.94	1.36	4.10	1.05
Retail Segment				
Retail sales volumes (thousands of gallons)	27,829	28,746	78,599	82,418

⁽¹⁾ We calculate Adjusted Gross Margin per barrel by dividing Adjusted Gross Margin by total refining throughput. Adjusted Gross Margin for our Washington refinery is determined under the last-in, first-out ("LIFO") inventory costing method. Adjusted Gross Margin for our other refineries is determined under the first-in, first-out ("FIFO") inventory costing method. The definition of Adjusted Gross Margin was modified beginning with the financial results reported for periods in fiscal year 2022. We have recast Adjusted Gross Margin for prior periods when reported to conform to the current presentation. Please see discussion of Adjusted Gross Margin below.

⁽²⁾ Management uses production costs per barrel to evaluate performance and compare efficiency to other companies in the industry. There are a variety of ways to calculate production costs per barrel; different companies within the industry calculate it in different ways. We calculate production costs per barrel by dividing all direct production costs, which include the costs to run the refineries including personnel costs, repair and maintenance costs, insurance, utilities, and other miscellaneous costs, by total refining throughput. Our production costs are included in Operating expense (excluding depreciation) on our condensed consolidated statement of operations, which also includes costs related to our bulk marketing operations.

⁽³⁾ We believe the 3-1-2 Singapore Crack Spread (or three barrels of Brent crude oil converted into one barrel of gasoline and two barrels of distillates (diesel and jet fuel)) is the most representative market indicator for our operations in Hawaii.

⁽⁴⁾ We believe the Pacific Northwest 5-2-2-1 Index is the most representative market indicator for our operations in Tacoma, Washington. The Pacific Northwest 5-2-2-1 Index is computed by taking two parts gasoline (sub-octane), two parts middle distillates (ultra-low sulfur diesel ("ULSD") and jet fuel), and one part fuel oil as created from five barrels of Alaskan North Slope ("ANS") crude oil.

(5) The profitability of our Wyoming refinery is heavily influenced by crack spreads in nearby markets. We believe the Wyoming 3-2-1 Index is the most representative market indicator for our operations in Wyoming. The Wyoming 3-2-1 Index is computed by taking two parts gasoline and one part distillates (ULSD) as created from three barrels of West Texas Intermediate Crude Oil ("WTI"). Pricing is based 50% on applicable product pricing in Rapid City, South Dakota, and 50% on applicable product pricing in Denver, Colorado.

Non-GAAP Performance Measures

Management uses certain financial measures to evaluate our operating performance that are considered non-GAAP financial measures. These measures should not be considered in isolation or as substitutes or alternatives to their most directly comparable GAAP financial measures or any other measure of financial performance or liquidity presented in accordance with GAAP. These non-GAAP measures may not be comparable to similarly titled measures used by other companies since each company may define these terms differently.

We believe Adjusted Gross Margin (as defined below) provides useful information to investors because it eliminates the gross impact of volatile commodity prices and adjusts for certain non-cash items and timing differences created by our inventory financing agreements and lower of cost and net realizable value adjustments to demonstrate the earnings potential of the business before other fixed and variable costs, which are reported separately in Operating expense (excluding depreciation) and Depreciation and amortization. Management uses Adjusted Gross Margin per barrel to evaluate operating performance and compare profitability to other companies in the industry and to industry benchmarks. We believe Adjusted Net Income (Loss) and Adjusted EBITDA (as defined below) are useful supplemental financial measures that allow investors to assess the financial performance of our assets without regard to financing methods, capital structure, or historical cost basis, the ability of our assets to generate cash to pay interest on our indebtedness, and our operating performance and return on invested capital as compared to other companies without regard to financing methods and capital structure. We believe Adjusted EBITDA by segment (as defined below) is a useful supplemental financial measure to evaluate the economic performance of our segments without regard to financing methods, capital structure, or historical cost basis.

Beginning with financial results reported for periods in fiscal year 2022, the inventory valuation adjustment was modified to include the first-in, first-out ("FIFO") inventory gains (losses) associated with our titled manufactured inventory in Hawaii. This modification was made to better align Adjusted Net Income (Loss) and Adjusted EBITDA with the cash flow of the Hawaii refining business. Prior to 2022, the impacts of FIFO inventory gains (losses) associated with Hawaii titled manufactured inventory were eliminated through the inventory valuation adjustment. Beginning with financial results reported for the second quarter of 2022, Adjusted Gross Margin, Adjusted Net Income (Loss), and Adjusted EBITDA also exclude the mark-to-market losses (gains) associated with our net RINs liability. This modification was made to better reflect our operating performance and to improve comparability between periods. We have recast Adjusted Gross Margin, Adjusted Net Income (Loss), and Adjusted EBITDA for prior periods when reported to conform to the modified presentation.

Adjusted Gross Margin

Adjusted Gross Margin is defined as operating income (loss) excluding:

- operating expense (excluding depreciation);
- depreciation and amortization ("D&A");
- impairment expense:
- loss (gain) on sale of assets, net;
- inventory valuation adjustment (which adjusts for timing differences to reflect the economics of our inventory financing agreements, including lower of cost or net realizable value adjustments, the impact of the embedded derivative repurchase or terminal obligations, contango (gains) and backwardation losses associated with our Washington inventory and intermediation obligation, and purchase price allocation adjustments);
- LIFO layer liquidation impacts associated with our Washington inventory;
- Renewable Identification Numbers ("RINs") mark-to-market adjustments (which represents the income statement effect of reflecting our RINs liability on a net basis; this adjustment also includes the mark-to-market losses (gains) associated with our net RINs liability); and
- unrealized loss (gain) on derivatives.

Adjusted Gross Margin can also be defined as revenues less cost of revenues (excluding depreciation) excluding:

- inventory valuation adjustment;
- unrealized loss (gain) on derivatives;
- LIFO layer liquidation impacts associated with our Washington inventory; and
- RINs mark-to-market adjustments (which represents the income statement effect of reflecting our RINs liability on a net basis; this adjustment also includes the mark-to-market losses (gains) associated with our net RINs liability).

We define cost of revenues (excluding depreciation) as:

- the hydrocarbon-related costs of inventory sold;
- transportation costs of delivering product to customers;
- crude oil consumed in the refining process;
- costs to satisfy our RINs and environmental credit obligations;
- · certain hydrocarbon fees and taxes; and
- the unrealized gain (loss) on derivatives and the inventory valuation adjustment that we exclude from Adjusted Gross Margin.

The following tables present a reconciliation of Adjusted Gross Margin to the most directly comparable GAAP financial measure, operating income (loss), on a historical basis, for selected segments, for the periods indicated (in thousands):

Three months ended September 30, 2022	Refining	L	ogistics	Retail
Operating income (loss)	\$ 266,091	\$	17,625	\$ 17,320
Operating expense (excluding depreciation)	63,049		3,710	21,570
Depreciation and amortization	16,542		5,059	2,865
Loss (gain) on sale of assets, net			(241)	56
Inventory valuation adjustment	(91,135)		_	_
RINs mark-to-market adjustments	(6,731)			
Unrealized loss on derivatives	3,004			
Adjusted Gross Margin (1)	\$ 250,820	\$	26,153	\$ 41,811

Three months ended September 30, 2021	R	Refining	L	ogistics	Retail
Operating income (loss)	\$	86,413	\$	13,357	\$ 11,201
Operating expense (excluding depreciation)		55,613		3,754	18,692
Depreciation and amortization		14,748		5,545	2,630
Loss (gain) on sale of assets, net				2	
Inventory valuation adjustment		2,784			
LIFO liquidation adjustment		(4,151)			
RINs mark-to-market adjustments		(72,087)			
Unrealized loss on derivatives		10,228			
Adjusted Gross Margin (2)	\$	93,548	\$	22,658	\$ 32,523

Nine Months Ended September 30, 2022	Refining	L	ogistics	Retail
Operating income	\$ 316,564	\$	43,375	\$ 26,890
Operating expense (excluding depreciation)	180,450		11,280	60,345
Depreciation and amortization	48,854		15,357	8,156
Loss (gain) on sale of assets, net	_		(253)	56
Inventory valuation adjustment	(18,039)			
RINs mark-to-market adjustments	83,119			
Unrealized gain on derivatives	(10,151)			
Adjusted Gross Margin (1)	\$ 600,797	\$	69,759	\$ 95,447

Refining	L	ogistics		Retail
\$ (103,571)	\$	37,976	\$	73,207
156,895		11,144		53,029
43,373		16,176		8,164
(19,595)		(19)		(44,786)
55,527				_
58,973				_
7,620				
\$ 199,222	\$	65,277	\$	89,614
	\$ (103,571) 156,895 43,373 (19,595) 55,527 58,973 7,620	\$ (103,571) \$ 156,895 43,373 (19,595) 55,527 58,973 7,620	\$ (103,571) \$ 37,976 156,895 11,144 43,373 16,176 (19,595) (19) 55,527 — 58,973 — 7,620 —	\$ (103,571) \$ 37,976 \$ 156,895 11,144 43,373 16,176 (19,595) (19) 55,527 — 58,973 — 7,620 —

⁽¹⁾ There was no LIFO liquidation adjustment or impairment expense for the three and nine months ended September 30, 2022

Adjusted Net Income (Loss) and Adjusted EBITDA

Adjusted Net Income (Loss) is defined as Net income (loss) excluding:

- inventory valuation adjustment (which adjusts for timing differences to reflect the economics of our inventory financing agreements, including lower of cost or net realizable value adjustments, the impact of the embedded derivative repurchase or terminal obligations, contango (gains) and backwardation losses associated with our Washington inventory and intermediation obligation, and purchase price allocation adjustments);
- the LIFO layer liquidation impacts associated with our Washington inventory;
- RINs mark-to-market adjustments (which represents the income statement effect of reflecting our RINs liability on a net basis; this adjustment also includes the mark-to-market losses (gains) associated with our net RINs liability);
- unrealized (gain) loss on derivatives;
- acquisition and integration costs;
- debt extinguishment and commitment costs;
- increase in (release of) tax valuation allowance and other deferred tax items;
- changes in the value of contingent consideration and common stock warrants;
- severance costs;
- (gain) loss on sale of assets;
- impairment expense;
- impairment expense associated with our investment in Laramie Energy and our share of Laramie Energy's asset impairment losses in excess of our basis difference; and
- Par's share of Laramie Energy's unrealized loss (gain) on derivatives.

⁽²⁾ There was no LIFO liquidation adjustment for the three months ended September 30, 2021 or impairment expense for the three and nine months ended September 30, 2021.

Adjusted EBITDA is defined as Adjusted Net Income (Loss) excluding:

- D&A;
- interest expense and financing costs;
- equity losses (earnings) from Laramie Energy excluding Par's share of unrealized loss (gain) on derivatives, impairment of Par's investment, and our share of Laramie Energy's asset impairment losses in excess of our basis difference; and
- income tax expense (benefit).

The following table presents a reconciliation of Adjusted Net Income (Loss) and Adjusted EBITDA to the most directly comparable GAAP financial measure, net income (loss), on a historical basis for the periods indicated (in thousands):

	 Three Moi Septem		Nine Months Ended September 30,					
	2022		2021		2022		2021	
Net income (loss)	\$ 267,396	\$	81,802	\$	279,470	\$	(89,383)	
Inventory valuation adjustment	(91,135)		2,784		(18,039)		55,527	
LIFO liquidation adjustment	_		(4,151)				_	
RINs mark-to-market adjustments	(6,731)		(72,087)		83,119		58,973	
Unrealized loss (gain) on derivatives	3,004		10,228		(10,151)		7,620	
Acquisition and integration costs	_		1		63		87	
Debt extinguishment and commitment costs	(343)		9		5,329		8,144	
Severance costs	9		59		2,272		75	
Loss (gain) on sale of assets, net	(185)		2		(170)		(64,400)	
Adjusted Net Income	172,015		18,647		341,893		(23,357)	
Depreciation and amortization	25,125		23,618		74,488		70,046	
Interest expense and financing costs, net	16,852		15,374		51,400		50,711	
Income tax expense	68		586		756		1,193	
Adjusted EBITDA (1)	\$ 214,060	\$	58,225	\$	468,537	\$	98,593	

⁽¹⁾ For the three and nine months ended September 30, 2022 and 2021, there was no change in value of contingent consideration, change in valuation allowance and other deferred tax items, change in value of common stock warrants, impairment expense, or equity losses (earnings) from Laramie Energy, LLC, including impairments associated with our investment in Laramie Energy, our share of Laramie Energy's asset impairment losses in excess of our basis difference, and our share of Laramie Energy's unrealized loss (gain) on derivatives.

The following table sets forth the computation of basic and diluted Adjusted Net Income (Loss) per share (in thousands, except per share amounts):

	Three Months Ended September 30,				Nine Months Ende September 30,			
	2022		2021		2022		2021	
Adjusted Net Income (Loss)	\$ 172,015	\$	18,647	\$	341,893	\$	(23,357)	
Undistributed Adjusted Net Income allocated to participating securities								
Adjusted Net Income (Loss) attributable to common stockholders	172,015		18,647		341,893		(23,357)	
Plus: effect of convertible securities					_			
Numerator for diluted income (loss) per common share	\$ 172,015	\$	18,647	\$	341,893	\$	(23,357)	
Basic weighted-average common stock shares outstanding	59,535		59,437		59,481		57,713	
Add dilutive effects of common stock equivalents (1)	296		324		229		<u> </u>	
Diluted weighted-average common stock shares outstanding	59,831		59,761		59,710		57,713	
Basic Adjusted Net Income (Loss) per common share	\$ 2.89	\$	0.31	\$	5.75	\$	(0.40)	
Diluted Adjusted Net Income (Loss) per common share	\$ 2.88	\$	0.31	\$	5.73	\$	(0.40)	

⁽¹⁾ Entities with a net loss from continuing operations are prohibited from including potential common shares in the computation of diluted per share amounts. We have utilized the basic shares outstanding to calculate both basic and diluted Adjusted Net Loss per common share for the nine months ended September 30, 2021.

Adjusted EBITDA by Segment

Adjusted EBITDA by segment is defined as Operating income (loss) excluding:

- D&A;
- inventory valuation adjustment (which adjusts for timing differences to reflect the economics of our inventory financing agreements, including lower of cost or net realizable value adjustments, the impact of the embedded derivative repurchase or terminal obligations, contango (gains) and backwardation losses associated with our Washington inventory and intermediation obligation, and purchase price allocation adjustments);
- the LIFO layer liquidation impacts associated with our Washington inventory;
- RINs mark-to-market adjustments (which represents the income statement effect of reflecting our RINs liability on a net basis; this adjustment also includes the mark-to-market losses (gains) associated with our net RINs liability);
- unrealized (gain) loss on derivatives;
- acquisition and integration costs;
- severance costs;
- (gain) loss on sale of assets; and
- impairment expense.

Adjusted EBITDA by segment also includes Gain on curtailment of pension obligation and Other income (loss), net, which are presented below operating income (loss) on our condensed consolidated statements of operations.

The following table presents a reconciliation of Adjusted EBITDA by segment to the most directly comparable GAAP financial measure, operating income (loss) by segment, on a historical basis, for selected segments, for the periods indicated (in thousands):

Three Months Ended September 30, 202

	R	Refining	ning Logistics		Retail	orporate nd Other
Operating income (loss) by segment	\$	266,091	\$	17,625	\$ 17,320	\$ (16,865)
Depreciation and amortization		16,542		5,059	2,865	659
Inventory valuation adjustment		(91,135)				
RINs mark-to-market adjustments		(6,731)		_		_
Unrealized loss (gain) on derivatives		3,004		_		_
Acquisition and integration costs						
Severance costs		_		9		_
Loss (gain) on sale of assets, net		_		(241)	56	27
Other income (loss), net						(198)
Adjusted EBITDA (1)	\$	187,771	\$	22,452	\$ 20,241	\$ (16,377)

Three Months Ended September 30, 2021

	R	efining	I	Logistics		Retail	Corporate and Other		
Operating income (loss) by segment	\$	86,413	\$	13,357	\$	11,201	\$	(13,178)	
Depreciation and amortization		14,748		5,545		2,630		695	
Inventory valuation adjustment		2,784		_		_		_	
LIFO liquidation adjustment		(4,151)		_		_		_	
RINs mark-to-market adjustments		(72,087)		_		_		_	
Unrealized loss (gain) on derivatives		10,228		_		_		_	
Acquisition and integration costs				_		_		1	
Severance costs	53 6			_	_				
Loss on sale of assets, net				2		_		_	
Other income (loss), net								(22)	
Adjusted EBITDA (1)	\$	37,988	\$	18,910	\$	13,831	\$	(12,504)	

Nine Months Ended September 30, 2022

	R	Refining	Logistics			Retail	Corporate and Other		
Operating income (loss) by segment	\$	316,564	\$	43,375	\$	26,890	\$	(49,725)	
Depreciation and amortization		48,854		15,357		8,156		2,121	
Inventory valuation adjustment		(18,039)		_		_			
RINs mark-to-market adjustments		83,119		_		_			
Unrealized loss (gain) on derivatives	(10,151)			_		_			
Acquisition and integration costs				_		_		63	
Severance costs		40		13		22		2,197	
Loss on sale of assets, net				(253)		56		27	
Other income (loss), net								(149)	
Adjusted EBITDA (1)	\$	420,387	\$	58,492	\$	35,124	\$	(45,466)	

Nine Months Ended September 30, 2021

	Refining	Logistics	Retail	Corporate and Other		
Operating income (loss) by segment	\$ (103,57	(1) \$ 37,976	\$ 73,207	\$ (38,982)		
Depreciation and amortization	43,37	3 16,176	8,164	2,333		
Inventory valuation adjustment	55,52	.7 —	_	_		
RINs mark-to-market adjustments	58,97		_			
Unrealized loss (gain) on derivatives	7,62	0 —	_			
Acquisition and integration costs	_		_	87		
Severance costs	5	3 22	_			
Loss (gain) on sale of assets, net	(19,59	(19)	(44,786)			
Gain on curtailment of pension obligation	1,80	2 228	2			
Other income (loss), net	_		_	3		
Adjusted EBITDA (1)	\$ 44,18	\$ 54,383	\$ 36,587	\$ (36,559)		

⁽¹⁾ For the three and nine months ended September 30, 2022, there was no LIFO liquidation adjustment, impairment expense, or gain on curtailment of pension obligation. For the three months ended September 30, 2021, there was no impairment expense or gain on curtailment of pension obligation. For the nine months ended September 30, 2021, there was no impairment expense.

Laramie Energy Adjusted EBITDAX

Adjusted EBITDAX is defined as net income (loss) excluding commodity derivative loss (gain), loss (gain) on settled derivative instruments, interest expense, gain on extinguishment of debt, non-cash preferred dividend, depreciation, depletion, amortization, and accretion, exploration and geological and geographical expense, bonus accrual, equity-based compensation expense, loss (gain) on disposal of assets, and expired acreage (non-cash). We believe Adjusted EBITDAX is a useful supplemental financial measure to evaluate the economic and operational performance of exploration and production companies such as Laramie Energy.

The following table presents a reconciliation of Laramie Energy's Adjusted EBITDAX to the most directly comparable GAAP financial measure, net income (loss) for the periods indicated (in thousands):

	1	Three Moi Septem		Nine Months Ended September 30,					
		2022	2021		2022			2021	
Net income (loss)	\$	(5,187)	\$	(41,892)	\$	(37,704)	\$	(1,308)	
Commodity derivative loss (gain)		31,085		56,535		104,285		57,885	
Gain (loss) on settled derivative instruments		(13,717)		(1,679)		(33,529)		(2,846)	
Interest expense and loan fees		3,364		5,225		11,235		12,428	
Gain on extinguishment of debt				(695)		_		(695)	
Non-cash preferred dividend		2,782		1,715		7,508		5,457	
Depreciation, depletion, amortization, and accretion		7,189		6,548		19,325		23,045	
Exploration and geological and geographical expense								342	
Bonus accrual								602	
Equity-based compensation expense									
Loss (gain) on disposal of assets		(14)		33		710		(6)	
Expired acreage (non-cash)		259		387		307		725	
Total Adjusted EBITDAX	\$	25,761	\$	26,177	\$	72,137	\$	95,629	